

# WEST Search History

DATE: Wednesday, May 07, 2003

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set

*DB=USPT; PLUR=YES; OP=ADJ*

L11	6-oxocampestanol	1	L11
L10	l7 and l3	0	L10
L9	l7 and l1	0	L9
L8	L7 and brassinosteriod	1	L8
L7	campestanol	45	L7
L6	L5 and transgenic	26	L6
L5	L4 and plant	60	L5
L4	brassinosteroid	62	L4
L3	cyp90b1	1	L3
L2	cup90b1	0	L2
L1	dwf4 or dwarf4 or dwarf 4	2	L1

END OF SEARCH HISTORY

Connecting via Winsock to STN

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NEWS 2 Apr 08 "Ask CAS" for self-help around the clock  
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NEWS 5 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
now available on STN  
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NEWS 7 Sep 03 JAPIO has been reloaded and enhanced  
NEWS 8 Sep 16 Experimental properties added to the REGISTRY file  
NEWS 9 Sep 16 CA Section Thesaurus available in CAPLUS and CA  
NEWS 10 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985  
NEWS 11 Oct 24 BEILSTEIN adds new search fields  
NEWS 12 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN  
NEWS 13 Nov 18 DKILIT has been renamed APOLLIT  
NEWS 14 Nov 25 More calculated properties added to REGISTRY  
NEWS 15 Dec 04 CSA files on STN  
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NEWS 17 Dec 17 TOXCENTER enhanced with additional content  
NEWS 18 Dec 17 Adis Clinical Trials Insight now available on STN  
NEWS 19 Jan 29 Simultaneous left and right truncation added to COMPENDEX,  
ENERGY, INSPEC  
NEWS 20 Feb 13 CANCERLIT is no longer being updated  
NEWS 21 Feb 24 METADEX enhancements  
NEWS 22 Feb 24 PCTGEN now available on STN  
NEWS 23 Feb 24 TEMA now available on STN  
NEWS 24 Feb 26 NTIS now allows simultaneous left and right truncation  
NEWS 25 Feb 26 PCTFULL now contains images  
NEWS 26 Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results  
NEWS 27 Mar 19 APOLLIT offering free connect time in April 2003  
NEWS 28 Mar 20 EVENTLINE will be removed from STN  
NEWS 29 Mar 24 PATDPAFULL now available on STN  
NEWS 30 Mar 24 Additional information for trade-named substances without  
structures available in REGISTRY  
NEWS 31 Apr 11 Display formats in DGENE enhanced  
NEWS 32 Apr 14 MEDLINE Reload  
NEWS 33 Apr 17 Polymer searching in REGISTRY enhanced  
NEWS 34 Apr 21 Indexing from 1947 to 1956 being added to records in CA/CAPLUS  
NEWS 35 Apr 21 New current-awareness alert (SDI) frequency in  
WPIDS/WPINDEX/WPIX  
NEWS 36 Apr 28 RDISCLOSURE now available on STN  
NEWS 37 May 05 Pharmacokinetic information and systematic chemical names  
added to PHAR  
  
NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT  
MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),  
AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information

NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 14:21:58 ON 07 MAY 2003

=> file agricola caplus biosis  
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FILE 'AGRICOLA' ENTERED AT 14:22:08 ON 07 MAY 2003

FILE 'CAPLUS' ENTERED AT 14:22:08 ON 07 MAY 2003  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 14:22:08 ON 07 MAY 2003  
COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

=> s dwf4 or dwarf4 or dwarf 4  
L1 39 DWF4 OR DWARF4 OR DWARF 4

=> dup rem l  
ENTER L# LIST OR (END):l1  
'L' IS NOT VALID. VALID FILE NAMES ARE 'AGRICOLA, CAPLUS, BIOSIS'  
You have entered a file name of duplicates to keep that is not referenced by any of the L#s specified for this DUPLICATE command.  
The file names of duplicates that can be kept are listed above.  
Please enter one of these file names.

=> dup rem l1  
PROCESSING COMPLETED FOR L1  
L2 21 DUP REM L1 (18 DUPLICATES REMOVED)

=> d 1-10 ti

L2	ANSWER 1 OF 21	CAPLUS	COPYRIGHT 2003 ACS	DUPLICATE 1
TI	Organ-specific expression of brassinosteroid-biosynthetic genes and distribution of endogenous brassinosteroids in Arabidopsis			
L2	ANSWER 2 OF 21	CAPLUS	COPYRIGHT 2003 ACS	DUPLICATE 2
TI	Triadimefon, a fungicidal triazole-type P450 inhibitor, induces brassinosteroid deficiency-like phenotypes in plants and binds to DWF4 protein in the brassinosteroid biosynthesis pathway			
L2	ANSWER 3 OF 21	CAPLUS	COPYRIGHT 2003 ACS	DUPLICATE 3
TI	Brassinosteroid-regulated gene expression			

- L2 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 4  
 TI Analysis of carbohydrate metabolism of CPD antisense plants and the brassinosteroid-deficient cbb1 mutant
- L2 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 5  
 TI Regulation of transcript levels of the Arabidopsis cytochrome P450 genes involved in brassinosteroid biosynthesis
- L2 ANSWER 6 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 6  
 TI Selective interaction of triazole derivatives with **DWF4**, a cytochrome P450 monooxygenase of the Brassinosteroid biosynthetic pathway, correlates with brassinosteroid deficiency in planta.
- L2 ANSWER 7 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 7  
 TI Overexpression of **DWARF4** in the brassinosteroid biosynthetic pathway results in increased vegetative growth and seed yield in Arabidopsis.
- L2 ANSWER 8 OF 21 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI Transcriptional regulation of genes encoding brassinosteroid biosynthetic enzymes during tracheary element differentiation in Zinnia.
- L2 ANSWER 9 OF 21 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI Analysis of the gene expression in response to brassinosteroids by using Gene Chip.
- L2 ANSWER 10 OF 21 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI A novel brassinosteroid signaling component DWF12.

=> d ab

- L2 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1  
 AB Brassinosteroids (BRs) are steroidal plant hormones that are essential for growth and development. There is only limited information on where BRs are synthesized and used. We studied the organ specificity of BR biosynthesis in Arabidopsis, using two different approaches: We analyzed the expression of BR-related genes using real-time quant. reverse transcriptase-polymerase chain reaction, and analyzed endogenous BRs using gas chromatog.-mass spectrometry. Before starting this study, we cloned the second BR-6-oxidase (BR6ox2) gene from Arabidopsis and found that the encoded enzyme has the same substrate specificity as the enzyme encoded by the previously isolated 6-oxidase gene (BR6ox1) of Arabidopsis. Endogenous BRs and the expression of BR-related genes were detected in all organs tested. The highest level of endogenous BRs and the highest expression of the BR6ox1, BR6ox2, and **DWF4** genes were obsd. in apical shoots, which contain actively developing tissues. These genes are important in BR biosynthesis because they encode the rate-limiting or farthest downstream enzyme in the BR biosynthesis pathway. The second highest level of endogenous BRs and expression of BR6ox1 and **DWF4** were obsd. in siliques, which contains actively developing embryos and seeds. These findings indicate that BRs are synthesized in all organs tested, but are most actively synthesized in young, actively developing organs. In contrast, synthesis was limited in mature organs. Our observations are consistent with the idea that BRs function as the growth-promoting hormone in plants.

=> d so

L2 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1  
SO Plant Physiology (2003), 131(1), 287-297  
CODEN: PLPHAY; ISSN: 0032-0889

=> d au

L2 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1  
AU Shimada, Yukihiisa; Goda, Hideki; Nakamura, Ayako; Takatsuto, Suguru;  
Fujioka, Shozo; Yoshida, Shigeo

=> d 2 ab

L2 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 2  
AB Triadimefon (Bayleton), a widely used triazole-type fungicide, affects gibberellin (GA) biosynthesis and 14.alpha.-demethylase in sterol biosynthesis. The present study revealed that the phenotype of Arabidopsis treated with triadimefon resembled that of a brassinosteroid (BR)-biosynthesis mutant, and that the phenotype was rescued by brassinolide (BL), the most active BR, partly rescued by GA, and fully rescued by the co-application of BL and GA, suggesting that triadimefon affects both BR and GA biosynthesis. The target sites of triadimefon were investigated using a rescue expt., feeding triadimefon-treated Arabidopsis BR-biosynthesis intermediates, and a binding assay to expressed **DWF4** protein, which is reported to be involved in the BR-biosynthesis pathway. The binding assay indicated that the dissocn. const. for triadimefon was in good agreement with the activity in an in planta assay. In the triadimefon-treated Arabidopsis cells, the CPD gene in the BR-biosynthesis pathway was up-regulated, probably due to feedback regulation caused by BR deficiency. These results strongly suggest that triadimefon inhibits the reaction catalyzed by **DWF4** protein and induces BR deficiency in plants. As triadimefon treatment has proved to be beneficial to plants, this result suggests that BR-biosynthesis inhibitors can be applied to crops.

=> d 2 so

L2 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 2  
SO Biochemical Journal (2003), 369(1), 71-76  
CODEN: BIJOAK; ISSN: 0264-6021

=> d 5 ab

L2 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 5  
AB Cytochrome P 450 enzymes of the closely related CYP90 and CYP85 families catalyze essential oxidative reactions in the biosynthesis of brassinosteroid (BR) hormones. Arabidopsis CYP90B1/**DWF4** and CYP90A1/CPD are responsible for resp. C-22 and C-23 hydroxylation of the steroid side chain and CYP85A1 catalyzes C-6 oxidn. of 6-deoxo intermediates, whereas the functions of CYP90C1/ROT3, CYP90D1, and CYP85A2 are still unknown. Semiquant. reverse transcriptase-polymerase chain reaction analyses show that transcript levels of CYP85 and CYP90 genes are down-regulated by brassinolide, the end product of the BR biosynthesis pathway. Feedback control of the CYP90C1, CYP90D1, and CYP85A2 genes by brassinolide suggests that the corresponding enzymes might also participate in BR synthesis. CYP85 and CYP90 mRNAs show strong and transient accumulation during the 1st week of seedling development, as well as characteristic organ-specific distribution. Transcripts of CYP90A1 and CYP85A2 are preferentially represented in shoots and CYP90C1,

CYP90D1, and CYP85A1 mRNAs are more abundant in roots, whereas CYP90B1 is ubiquitously expressed. Remarkably, the spatial pattern of CYP90A1 expression is maintained in the BR-insensitive cbb2 mutant, indicating the independence of organ-specific and BR-dependent regulation. Quant. gas chromatog.-mass spectrometry anal. of endogenous BRs in shoots and roots of Arabidopsis, pea (*Pisum sativum*), and tomato (*Lycopersicon esculentum*) reveal similar partitioning patterns of BR intermediates in these species. Inverse correlation between CYP90A1/CPD transcript levels and the amts. of the CYP90A1 substrate 6-deoxocathasterone in shoots and roots suggests that transcriptional regulation plays an important role in controlling BR biosynthesis.

=> d 5 so

L2 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 5  
 SO Plant Physiology (2002), 130(1), 504-513  
 CODEN: PLPHAY; ISSN: 0032-0889

=> d 5 au

L2 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 5  
 AU Bancos, Simona; Nomura, Takahito; Sato, Tatsuro; Molnar, Gergely; Bishop, Gerard J.; Koncz, Csaba; Yokota, Takao; Nagy, Ferenc; Szekeres, Miklos

=> d 11-21 ti

L2 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2003 ACS  
 TI Protein and cDNA sequences of Arabidopsis **DWF4** gene encoding a cytochrome P450 that mediates multiple 22.alpha.-hydroxylation steps in brassinosteroid biosynthesis, and uses thereof

L2 ANSWER 12 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 8  
 TI The Arabidopsis dwarf1 mutant is defective in the conversion of 24-methylencholesterol to campesterol in brassinosteroid biosynthesis.

L2 ANSWER 13 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 9  
 TI The **DWF4** gene of arabidopsis encodes a cytochrome P450 that mediates multiple 22 alpha-hydroxylation steps in brassinosteroid biosynthesis.

L2 ANSWER 14 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 10  
 TI An arabidopsis brassinosteroid-dependent mutant is blocked in cell elongation.

L2 ANSWER 15 OF 21 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI Arabidopsis dwarf mutants define the genes involved in brassinosteroid biosynthesis.

L2 ANSWER 16 OF 21 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI Arabidopsis dwarf mutants define eight genes involved in brassinosteroid biosynthesis and signal transduction.

L2 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 11  
 TI Decreased muscle cell proliferation in chicks with a deletion in the GH receptor gene

L2 ANSWER 18 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 12  
 TI Phenotypic characterization of the **dwarf-4** mutant of lettuce.

L2 ANSWER 19 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 13  
 TI Rht1 and Rht2 semidwarf genes effect on hybrid vigor and agronomic traits of wheat.

L2 ANSWER 20 OF 21 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI THREE NEW ANALOGOUS MUTATIONS IN XENOPUS-LAEVIS.

L2 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2003 ACS  
 TI Biological effects of .gamma.-ray from cesium-137. Part II.

=> s brassinosteroid and transgenic

L3 49 BRASSINOSTEROID AND TRANSGENIC

=> s l3 and (dwf4 or cyp90b1

UNMATCHED LEFT PARENTHESIS 'AND (DWF4'

The number of right parentheses in a query must be equal to the number of left parentheses.

=> s l3 and (dwf4 or cyp90b1)

L4 7 L3 AND (DWF4 OR CYP90B1)

=> dup rem l4

PROCESSING COMPLETED FOR L4

L5 4 DUP REM L4 (3 DUPLICATES REMOVED)

=> d 1-4 ti

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1  
 TI Analysis of carbohydrate metabolism of CPD antisense plants and the **brassinosteroid**-deficient cbb1 mutant

L5 ANSWER 2 OF 4 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 2  
 TI Overexpression of DWARF4 in the **brassinosteroid** biosynthetic paththway results in increased vegetative growth and seed yield in Arabidopsis.

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS  
 TI Protein and cDNA sequences of Arabidopsis **DWF4** gene encoding a cytochrome P450 that mediates multiple 22.alpha.-hydroxylation steps in **brassinosteroid** biosynthesis, and uses thereof

L5 ANSWER 4 OF 4 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)  
 TI The Arabidopsis dwarf1 mutant is defective in the conversion of

24-methylencholesterol to campesterol in brassinosteroid biosynthesis.

=> d 1 ab

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1  
AB Brassinosteroids (BRs) are essential regulators of growth and development. BR-deficient mutants such as cpd/cbb3 and dwf4 display extreme dwarfism due to a failure in cell elongation. To avoid the severe pleiotropic effects caused by the extreme growth defect, transgenic Arabidopsis lines carrying a construct for antisense inhibition of CPD gene expression were established and subjected to physiol. anal. The CPD-antisense (.alpha.-CPD) lines display characteristic phenotypic alterations of BR-deficient plants such as reduced stem and petiole growth, smaller leaves, and a slightly delayed development. The obsd. changes are intermediate between the corresponding loss-of-function mutant (cbb3) and wild-type plants. In the present study, the primary carbon metab. of the transgenic lines as well as the BR-deficient cbb1 (dwf1-6/dim) mutant was analyzed. Gas exchange measurements indicated a reduced assimilatory capacity of the .alpha.-CPD plants. Soil-grown .alpha.-CPD as well as cbb1 (dwf1-6) mutant plants show a clear redn. in starch content. The metabolic alterations are accompanied by altered enzyme activities such as reduced invertase and cytosolic .beta.-amylase activity, and altered expression patterns of genes such as Atbfruct1, Asus1, and ct-Bmy (encoding a cell wall invertase, sucrose synthase, and plastidic .beta.-amylase, resp.). The impaired carbon assimilation, as well as the altered enzyme activities and gene expression patterns in the .alpha.-CPD and cbb1 (dwf1-6) plants, demonstrate the necessity of normal CPD and DIM expression for proper carbon uptake and metab. and may point to an essential function of BRs. The impaired growth of BR-deficient plants may be (at least in part) due to reduced photosynthesis.

=> d so

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1  
SO Plant, Cell and Environment (2002), 25(6), 783-791  
CODEN: PLCEDV; ISSN: 0140-7791

=> d 3 so

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS  
SO PCT Int. Appl., 113 pp.  
CODEN: PIXXD2

=> d 3 pi

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000047715	A2	20000817	WO 2000-US3820	20000211
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

AU 2000040010      A5    20000829      AU 2000-40010      20000211  
 EP 1173547      A2    20020123      EP 2000-919299      20000211  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO

=> d 4 ab

- L5 ANSWER 4 OF 4 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)
- AB Since the isolation and characterization of dwarf1-1 (dwf1-1) from a T-DNA insertion mutant population, phenotypically similar mutants, including deetiolated2 (det2), constitutive photomorphogenesis and dwarfism (cpd), **brassinosteroid** insensitive1 (bril), and **dwf4**, have been reported to be defective in either the biosynthesis or the perception of brassinosteroids. We present further characterization of dwf1-1 and additional dwf1 alleles. Feeding tests with **brassinosteroid** -biosynthetic intermediates revealed that dwf1 can be rescued by 22 alpha-hydroxycampesterol and downstream intermediates in the **brassinosteroid** pathway. Analysis of the endogenous levels of **brassinosteroid** intermediates showed that 24-methylencholesterol in dwf1 accumulates to 12 times the level of the wild type, whereas the level of campesterol is greatly diminished, indicating that the defective step is in C-24 reduction. Furthermore, the deduced amino acid sequence of DWF1 shows significant similarity to a flavin adenine dinucleotide-binding domain conserved in various oxidoreductases, suggesting an enzymatic role for DWF1. In support of this, 7 of 10 dwf1 mutations directly affected the flavin adenine dinucleotide-binding domain. Our molecular characterization of dwf1 alleles, together with our biochemical data, suggest that the biosynthetic defect in dwf1 results in reduced synthesis of bioactive brassinosteroids, causing dwarfism.

=> d 4 so

- L5 ANSWER 4 OF 4 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)
- S0 Plant physiology, Mar 1999. Vol. 119, No. 3. p. 897-907  
 Publisher: Rockville, MD : American Society of Plant Physiologists, 1926-  
 CODEN: PLPHAY; ISSN: 0032-0889

=> s brassinosteroid and campestanol

L6 38 BRASSINOSTEROID AND CAMPESTANOL

=> dup rem l6

PROCESSING COMPLETED FOR L6

L7 23 DUP REM L6 (15 DUPLICATES REMOVED)

=> s l7 and plant?

L8 22 L7 AND PLANT?

=> d 1-10 ti

- L8 ANSWER 1 OF 22 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)
- TI Selective interaction of triazole derivatives with DWF4, a cytochrome P450 monooxygenase of the **Brassinosteroid** biosynthetic pathway,

correlates with **brassinosteroid** deficiency in **planta**.

- L8 ANSWER 2 OF 22 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)
- TI Accumulation of 6-deoxocathasterone and 6-deoxocastasterone in Arabidopsis, pea and tomato is suggestive of common rate-limiting steps in **brassinosteroid** biosynthesis.
- L8 ANSWER 3 OF 22 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)
- TI A putative role for the tomato gene DUMPY and CURL-3 in **brassinosteroid** biosynthesis and response.
- L8 ANSWER 4 OF 22 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)
- TI Arabidopsis det2 is defective in the conversion of (24R)-24-methylcholest-4-en-3-one to (24R)-24-methyl-5alpha-cholestan-3-one in **brassinosteroid** biosynthesis.
- L8 ANSWER 5 OF 22 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)
- TI Activity of brassinosteroids in the dwarf rice lamina inclination bioassay.
- L8 ANSWER 6 OF 22 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)
- TI The Arabidopsis deetiolated2 mutant is blocked early in **brassinosteroid** biosynthesis.
- L8 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2003 ACS
- TI Arabidopsis **brassinosteroid**-insensitive dwarf12 mutants are semidominant and defective in a glycogen synthase kinase 3.beta.-like kinase
- L8 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2003 ACS
- TI The identification of CVP1 reveals a role for sterols in vascular patterning
- L8 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2003 ACS
- TI Identification and transformation of **campestanol** in cultured cells of Phaseolus vulgaris
- L8 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2003 ACS
- TI Identification of a **brassinosteroid**, castasterone from Marchantia polymorpha

=> d 11-22 ti

- L8 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2003 ACS
- TI Biosynthesis of cholestanol in higher **plants**
- L8 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2003 ACS
- TI Overexpression of DWARF4 in the **brassinosteroid** biosynthetic

pathway results in increased vegetative growth and seed yield in Arabidopsis

- L8 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2003 ACS  
TI Study and characterization of brassinosteroids and analogs using quantum chemical and biostatistical calculation methods
- L8 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2003 ACS  
TI **Brassinosteroid** levels increase drastically prior to morphogenesis of tracheary elements
- L8 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2003 ACS  
TI Mode of action of brassinazole: a specific inhibitor of **brassinosteroid** biosynthesis
- L8 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2003 ACS  
TI Identification of brassinosteroids and their biosynthetic precursors from seeds of pumpkin
- L8 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2003 ACS  
TI **Brassinosteroid** biosynthesis
- L8 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2003 ACS  
TI **Brassinosteroid**/sterol synthesis and **plant** growth as affected by lka and lkb mutations of pea
- L8 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2003 ACS  
TI Identification of teasterone and phytosterols in the lipid fraction from seeds of Cannabis sativa L
- L8 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2003 ACS  
TI Main title. VI. Identification of a new **brassinosteroid**, cathasterone, in cultured cells of Catharanthus roseus as a biosynthetic precursor of teasterone
- L8 ANSWER 21 OF 22 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI Blocked biosynthesis of **brassinosteroid**-deficient mutants lkb and lk.
- L8 ANSWER 22 OF 22 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI **Brassinosteroid**-deficient pea mutant lk with blocked synthesis of **campestanol**.

=> d 11 ab

- L8 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2003 ACS  
AB To understand the early steps of C27 **brassinosteroid** biosynthesis, metabolic expts. were performed with Arabidopsis thaliana and Nicotiana tabacum seedlings, and with cultured Catharanthus roseus cells. [26, 28-2H6]**Campestanol**, [26-2H3]cholesterol, and [26-2H3]cholestanol were administered to each **plant**, and the resulting metabolites were analyzed by gas chromatog.-mass spectrometry. In all the species examd., [2H3]cholestanol was identified as a metabolite of [2H6]**campestanol**, and [2H3]cholest-4-en-3-one and [2H3]cholestanol were identified as metabolites of [2H3]cholesterol. This study revealed that cholestanol (C27 sterol) was biosynthesized from both cholesterol (C27 sterol) and **campestanol** (C28 sterol). It was also demonstrated that cholestanol was converted to 6-oxocholestanol, and **campestanol** was converted to 6-oxocampestanol.

=> s 6-oxocampestanol

L9 12 6-OXOCAMPESTANOL

=> dup rem l9

PROCESSING COMPLETED FOR L9

L10 10 DUP REM L9 (2 DUPLICATES REMOVED)

=> d 1-10 ti

L10 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2003 ACS

TI The identification of CVP1 reveals a role for sterols in vascular patterning

L10 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2003 ACS

TI Arabidopsis brassinosteroid-insensitive dwarf12 mutants are semidominant and defective in a glycogen synthase kinase 3.beta.-like kinase

L10 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2003 ACS

DUPLICATE 1

TI Biosynthesis of cholestanol in higher plants

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TI Overexpression of DWARF4 in the brassinosteroid biosynthetic pathway results in increased vegetative growth and seed yield in Arabidopsis

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TI Brassinosteroid levels increase drastically prior to morphogenesis of tracheary elements

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TI Accumulation of 6-deoxocathasterone and 6-deoxocastasterone in Arabidopsis, pea and tomato is suggestive of common rate-limiting steps in brassinosteroid biosynthesis

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TI Biosynthesis of brassinosteroids in cultured cells of Catharanthus roseus

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TI Study and characterization of brassinosteroids and analogs using quantum chemical and biostatistical calculation methods

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TI Activity of brassinosteroids in the dwarf rice lamina inclination bioassay

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DUPLICATE 2

TI Biological activities of biosynthetically-related congeners of brassinolide